

AN ADDITIONAL FRESHWATER TURTLE SPECIES AND THE CONFIRMATION OF *CHELODINA NOVAEGUINEAE* IN THE NORTHERN TERRITORY, AUSTRALIA

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ABSTRACT

An additional species of *Eelseya* Gray (Chelidae: Reptilia), *E. latisternum* Gray is recorded from the tropical north of the Northern Territory, and the presence of *Chelodina novaeguineae* Boulenger in the Northern Territory is confirmed.

KEYWORDS: Reptilia, Chelidae, *Eelseya*, *Chelodina*, Northern Territory.

INTRODUCTION

There are four freshwater turtle species currently recognised as occurring in the Northern Territory. The aquatic pig-nosed turtle *Carettochelys insculpta* Ramsay, 1866, is the sole member of the monotypic Carettochelydidae, whereas the remaining species are semi-aquatic Chelidae: *Chelodina rugosa* Ogilby, 1890, *E. victoriae* (Gray, 1842) and *Eelseya dentata* (Gray, 1863).

SYSTEMATICS

Eelseya latisternum Gray

Northern Territory Material. N.T.M. R13,316, Mann River, 13° 01'S 133° 58'E, 1 ♂, coll. F. Woerle, 1985, (alcohol preserved); N.T.M. R13,516-7, Liverpool River, 12°35'S 133° 53'E, 2 ♀, coll. A. Georges, 22 October, 1986, (alcohol preserved); N.T.M. R13,524, same data but 1 ♂; A.M. R123,721, upstream from Jim Jim Falls, 13° 17'S 132° 50'E, sex unknown, coll. A. Pickering, (dry preserved).

Notes. The saw-shelled turtle *Eelseya latisternum* Gray, 1867 was previously restricted in its known distribution to a narrow area along the east coast of Australia ranging from Cape York Peninsula to northern New South Wales. Although Goode (1967) and Cann (1978) reported specimens from the Flinders River on the eastern edge of the Gulf of Carpentaria. More recently a specimen of *E. latisternum* (QMJ 47,076) was collected from the Gergory river near Riversleigh in Queensland (J. Covacevich pers. comm.). In this paper we have been able to extend this

species distribution over a considerable area of the north-eastern Northern Territory.

A total of five specimens of *E. latisternum* have been collected in the headwaters of the Mann River, Liverpool River and Jim Jim Creek in Arnhem Land. It would be reasonable to deduce from the widely separated localities, that these turtles occupy water-courses throughout the entire Arnhem Land plateau and its heavily dissected escarpment. This distribution is markedly isolated from the eastern populations. However, it is difficult to determine whether this is due to ineffective collecting in the Gulf of Carpentaria basin, or whether there is an unpopulated gap bisecting the two separate regions of this species distribution.

The specimens of *E. latisternum* collected were all adult and of both sexes. The animals were unambiguously *E. latisternum*, having an intergular shield which is as wide as or wider than the gular shields. All specimens have conical tubercles on the neck, and show a distinctive lateral demarcation between the dark grey dorsal surface and light coloured venter. Indeed, the only unusual characteristic of the live specimens examined was that the ventral skin surfaces of neck, arms and legs were distinctly pinkish. In some specimens pinkish red spots (which were arrayed in lateral lines), were present on the dark gray tail. *E. latisternum* from eastern populations generally have cream to white ventral colouration on these appendages. (Cogger, 1986)

Chelodina novaeguineae Boulenger

Northern Territory Material. N.T.M. A/S R5,753, Maria Island, 14°53'S 135°43'E, 1 ♀

, coll. D. Howe and L. Joshua, 11 July 1972, (alcohol preserved); N.T.M. A/S R5,898, Maria island, 14° 53'S 135° 43'E, coll. C.W. Dodd, 26 July 1972 (shell only).

Notes. There is some controversy about the status of this species. The New Guinean long necked turtle *Chelodina novaeguineae* Boulenger, 1888 is reported as occurring in Australia by Cogger (1986). It is found on the Cape York Peninsula and extends south to the Bowen area in Queensland. Cogger makes no mention of this species occurring in the Northern Territory, whereas, Cann (1978) claims *C. novaeguineae* is present in all river systems that enter into the Gulf of Carpentaria, and that it is also found in semipermanent lagoons near Daly waters and Newcastle waters in the central Northern Territory. Goode (1967) claims that these animals occur in Arnhem Land and extend as far south as Katherine. Both of these statements remain unsubstantiated in terms of museum specimens; no Australian specimens of *C. novaeguineae* are present in the extensive Australian Museum collection (R. Sadler pers. comm.).

Two specimens of *C. novaeguineae* have been collected from Maria Island in the south-western Gulf of Carpentaria (additional details given above). The specimens were determined to be *C. novaeguineae* on the basis of the following characters:

1. The anteriorly expanded plastron is less than 1.9 times longer than broad.
2. The intergular shield is markedly more than twice as long as the suture between the pectoral shields.
3. The tubercles on the neck are large and rounded in NTM A/S R 5753.
4. Both animals have an oval shaped carapace.

These specimens confirm the presence of *C. novaeguineae* in the Northern Territory. The locality from which the collection was made is of some significance, for Maria island is adjacent to the mouths of the Roper, Towns and Limmen-Bight rivers. It is possible that this population was established by specimens washed out to sea during flooding. Such animals may have taken refuge on the island. It is worth noting that the Hodgson River, a tributary of the Roper, arises in the vicinity of Daly Waters. This is the precise area from which Cann (1978) described a population of *C. novaeguineae*. Nevertheless, there is no evidence to support the occurrence of *C. novaeguineae* in the Arnhem Land to Katherine region as proposed by Goode (1967).

The occurrence of population isolates of both *E. latisternum* and *C. novaeguineae* in the east and central/west of northern Australia, suggests that these are relics of a once continuously distributed species. That is, ancestral *E. latisternum* may have been distributed from east to west across the north of Australia. It is also possible that *C. novaeguineae* isolates were once continuous and connected to the core populations in Papua New Guinea and West Irian.

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